TWO MINUTE TRAINING

TO: *CH2M HILL PLATEAU REMEDIATION COMPANY*

FROM: *PAUL W. MARTIN, Senior Environmental Compliance Officer*
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SUBJECT: *UNIVERSAL WASTE BATTERIES AND CLOSED CONTAINERS*

DATE: *OCTOBER 16, 2014*

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TWO MINUTE TRAINING

SUBJECT: Universal Waste Batteries and Closed Containers

Q: A customer is collecting discharged batteries (universal wastes) in an office environment in a marked, ½-gallon plastic jug. The jug has a cap with a square hole to allow workers to drop batteries in the container without having to remove and reapply the cap. Since the container of universal waste batteries is not really closed, i.e., there's a hole in the cap, is this collection container compliant with WAC 173-303-573, "Standards for Universal Waste Management" concerning battery container closures?

A: Per WAC 173-303-573(20) *[40 CFR 273.33]*, "Waste Management", it states at paragraph (a)(i):

A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

The above wording means that universal waste batteries must be in a closed container only if the batteries are leaking or damaged to the extent that the batteries could leak. Therefore, the customer could collect nonleaking universal waste batteries in an open top container. Should a battery start to leak, the customer would need to close the container, or transfer the leaking battery to another container that is then closed. A plastic baggie meets the definition of a container and the leaking battery could be placed in a closed plastic baggie and then the baggie placed in the open top container. In this configuration, the nonleaking batteries (open top container) and the leaking battery (a closed plastic baggie) are both compliant.

NOTE: Other universal waste containers collecting mercury containing equipment (MCE) must be closed if the MCE has uncontained mercury, is leaking or could leak. If the MCE is in good condition, the MCE can be collected in an open top container like nonleaking batteries. However, mercury ampules removed from MCE must be collected in a closed container. Also, universal waste lamp containers must always be closed to minimize breakage and emissions. There is no exception to collect lamps in open top containers similar to nonleaking batteries and some MCE.

SUMMARY:

- Nonleaking universal waste batteries can be collected in open top containers.
- Leaking universal waste batteries must be collected in closed containers.
- Nonleaking universal waste MCE can be collected in open top containers; however, leaking MCE or removed mercury ampules, and all universal waste lamps must be collected in closed containers.

Excerpts from WAC 173-303-573(20)(a), (b) and (c) are attached to the e-mail. If you have any questions, please contact me at "Paul_W_Martin@rl.gov" or at (509) 376-6620.

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Universal Waste Batteries and Closed Containers

WAC 173-303-573 Standards for universal waste management

(20) Waste management.

(a) **Universal waste batteries.** A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(b) **Universal waste mercury-containing equipment.** A large quantity handler of universal waste must manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A large quantity handler of universal waste must place in a container any universal waste mercury-containing equipment with noncontained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(ii) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(A) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;
(B) Removes ampules only over or in a containment device (for example, tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);
(C) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules, from that containment device to a container that meets the requirements of WAC 173-303-200;
(D) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of WAC 173-303-200;
(E) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;
(F) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;
(G) Stores removed ampules in closed, nonleaking containers that are in good condition;
(H) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

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(c) **Universal waste lamps.** A large quantity handler of universal waste must manage universal waste lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(i) A large quantity handler of universal waste must immediately clean up and place in a container any universal waste lamps that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the lamps, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(ii) A large quantity handler of universal waste must minimize lamp breakage by accumulating lamps in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. The containers and packages must remain closed and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(iii) A large quantity handler of universal waste must store lamps accumulated in cardboard or fiber containers indoors, meaning in a structure that prevents a container from being exposed to the elements.